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PSYCHIATRIC NEWS

The First and Last Word in Psychiatry

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The city of Toronto is ready to welcome APA members and their guests for the 2015 annual meeting. Register now to take advantage of advance-registration rates. To learn about some of Toronto's most tantalizing dining choices, see page 12.

IOM Tackles Standards on Cognition in Depression

Researchers and the pharmaceutical industry need an agreed-on set of definitions and targets of cognitive dysfunction in depression so that work on new treatments can advance.

BY AARON LEVIN

Cognitive dysfunction is a neglected aspect of depression, and much work remains to be done before mapping a research path to treat this dimension of the disorder, concluded panelists at an Institute of Medicine workshop February 24 in Washington, D.C.

Depression is as much a cognitive as a mood disorder, given the brain regions involved. Many patients who respond to treatment for depression "continue to have subjective complaints and have difficulty returning to their previous level of function," according to the workshop's co-chairs, National Institute of Mental Health (NIMH) Director Thomas Insel, M.D., and Thomas Laughren, M.D., director of Laughren Psychopharm Consulting. Laughren formerly worked at the Food and Drug Administration (FDA) as director of the Division of Psychiatry Products in the Office of New Drugs in the Center for Drug Evaluation and Research.

Workshop participants included representatives from NIMH, the FDA, academia, and the pharmaceutical industry.

That eclectic mix began what is likely to be a long-term discussion

see ***Depression*** *on page 8*

Analysis Tells Story of Global Burden Of Mental Illness–Related Mortality

Studies looking at mortality and mental illness worldwide indicate that mortality is significantly higher among people with mental illness than among comparison groups from the general population.

BY MARK MORAN

Mental disorders rank among the most common causes of death worldwide, according to a meta-analysis published online February 11 in *JAMA Psychiatry.*

An estimated 14.3 percent of deaths worldwide, or approximately 8 million deaths each year, are attributable to mental disorders, according to the new report. The authors were Elizabeth Reisinger Walker, Ph.D., M.P.H., Robin McGee, M.P.H., and Benjamin Druss, M.D., of Emory University.

They searched Embase, Medline, PsycINFO, and Web of Science from inception through May 7, 2014, including references of eligible articles, using the following search terms for mental disorders, specific diagnoses, and mortality: mental disorders, serious mental illness, severe mental illness, schizophrenia, depression, anxiety, and bipolar disorder.

English-language cohort studies that reported a mortality estimate of mental disorders compared with a general population or controls from the same study setting without mental illness were included. Of 2,481 studies identified, 203 articles met the eligibility criteria and represented 29 countries on six continents.

The variable of interest was mortality estimates (standardized mortality ratios, relative risks, hazard ratios, odds ratios, and years of potential life lost) for people with mental disorders and the general population or subpopulations of people without mental disorders. The researchers used statistical analysis models to pool mortality

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PSYCHIATRIC NEWS

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Register Now and Save!

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Join your colleagues from across the United States and more than 50 countries for the psychiatry event of the year. APA's 2015 annual meeting is being held in Toronto from May 16 to 20 on the theme "Psychiatry: Integrating Body and Mind, Heart and Soul." Take advantage of the low advance-registration rates now in effect by registering now at **annualmeeting.psychiatry.org**. And while you are at it, be sure to reserve your hotel room at APA's preferred convention rates.

For travel information to and from Canada, see the box on page 9.

Departments

FROM THE PRESIDENT

APA's Road Map, Psychiatry's Future

BY PAUL SUMMERGRAD, M.D.

Over the 171 years of the American Psychiatric Association's life, a five-year forecast at any given moment could have run the gamut from uncertain to bright.

Today, it is not news that there are major changes occurring in all of medicine. So while we are well positioned, due to the strength of the science undergirding psychiatry and increased public attention to mental health, as we look toward the year 2020, the environment is changing. Now is the time to recommit ourselves to thinking strategically about the road ahead and to do so with the broad input of our membership.

Near the beginning of my presidency, I asked the Board for its support in launching a strategic-planning process. We had just completed the successful launch of *DSM-5* and a planned CEO transition, and while much was changing in the environment, we were also not in crisis. Two things were clear: we were going to take on the next five years from a position of vigor, and we needed to have a north star, a direction in which to head. Our goal was to determine how best to meet the challenges and opportunities ahead, internally and externally, and have a multiyear focus so as not to be overly buffeted by the crisis du jour or the changes in leadership that are inevitable in a membership organization.

As I write this column, the APA Work Group on Strategic Planning's recommendations are being readied for review and action by the Board of Trustees, which is meeting as this issue goes to press. Upon Board action, the final plan will be shared with the entire membership, because it's a plan that will belong to every member and more broadly to patients and families and our field.

Our strategic planning group was steadfastly committed to involving members in this process. In November 2014, we conducted the largest and most extensive all-member survey in APA's recent history—one that drew over 2,200 responses. Not only did we have a robust response to a lengthy survey, but those who responded mirrored closely the makeup of APA as a whole, and many took the time to add extensive and passionate comments. And because APA's road map has considerable influence over the destination of our entire profession, we surveyed nonmembers as well. It's not a small point: we take our role as the voice of American psychiatry very seriously.

Here's some of what we learned:

- Respondents clearly recognized a shift toward a transformed health care system.

- Importantly, they powerfully identified a need for psychiatry to find its place in this transformed system. A number of respondents said APA can and must do better in charting these waters. And APA must do a much better job of supporting our members through this complex transition.

- They told us we can't go it alone: they very strongly believe that collaboration with other medical organizations is especially critical.

- With less intensity, they believe collaboration with mental health groups is also important, although not as central as our work in the house of medicine.

- They see a more diverse psychiatric workforce, in all its dimensions, in the future, as well as a more diverse patient population.

- They definitively recognized the importance of evidence-based care and its connection to quality of care. Many want APA to play an active role in developing quality measures and providing usable technological support for our work.

- They prioritized APA's focus on advocacy, communication, and education.

- They believe that APA needs to go "where the patients are," engaging them in the fight for mental health parity, for example. They see psychiatrists focusing on more complex cases in the future. Younger members especially hold this view. Many respondents said that APA must help in this transition, whether or not particular members choose to change practice settings.

Psychiatrists across the spectra of age, practice setting, geography, and subspecialty gave their time and thoughts to help guide the work group's important decisions. Armed with this input, the work group came to consensus that there are four major areas of focus for APA: advancing the integration of psychiatry in a transformed health care system, research, education, and diversity. And cross-cutting and essential to these efforts are advocacy and communications.

In advocacy, the work group's recommended strategic plan underscored the importance of integrating psychiatry in the evolving health care delivery system, advocacy for the central role of psychiatry in all care settings, and parity implementation and enforcement. As the environment changes and new technologies emerge, APA needs to assist members in those transitions.

In the research arena, the work group recommended that APA advocate for enhanced funding to achieve the fundamental understandings of psychiatric illness that will transform clinical care and reduce the burden of mental illness for our patients and society. Quality measures will help, as will best practices and expertise in APA on what the practice of psychiatry really looks like across the United States.

Education has two components: one is supporting lifelong learning—from medical school and residency training throughout our members' careers; the other is educating patients, families, the public, and other practitioners about mental disorders and evidence-based treatment options. None of this can happen without advocacy for residency training and building the psychiatric workforce.

Finally, with respect to diversity, the work group advocated for APA to support and increase diversity throughout the Association, while also helping members care for diverse and underserved patient populations. Working to end disparities in mental health care is a crucial component of this work.

The work group was acutely aware that we cannot achieve these ends on our own and that we need to be mindful of changes in our environment. It also made the strategic plan flexible: "APA is a learning organization, and we are prepared to update our structure and governance to meet the needs of our profession, members, and society in a changing environment," it wrote.

I want to thank several people, especially work group members, who volunteered generously over the past year to bring this plan to life: APA President-elect Renée Binder, M.D., Assembly Speaker Jenny Boyer, M.D., Ph.D., J.D., CEO and Medical Director Saul Levin, M.D., M.P.A., Speaker-elect Glenn Martin, M.D., Immediate Past President Jeffrey Lieberman, M.D., Past President Alan Schatzberg, M.D., Altha Stewart,

*see **From the President** on page 30*

New *DSM* Guide Describes Changes to Eating, Elimination, Sleep Disorders Criteria

Important changes to eating disorder criteria described in the new volume for the general public include the addition of binge eating disorder and elimination of amenorrhea as a criterion for anorexia.

BY MARK MORAN

DSM-5, released in 2013, has been widely purchased and perused by professionals and members of the public. But as a guide to really understanding mental disorders for those not professionally trained, it's not quite enough—or maybe a little too much. That's why in May, American Psychiatric Publishing will issue a new volume: *Understanding Mental Disorders: Your Guide to DSM-5.*

"I think *DSM-5* can be considered a reference tool for everyone, including patients and families, but it's not intended as a guide for laypersons," said David Kupfer, M.D., chair of the *DSM-5* Task Force, which oversaw the long research endeavor that resulted in the clinicians' guide. "It's a bit too complicated, and what we knew would be needed was something that embraced the key concepts of the clinicians' manual but also provided a translational piece to bring those concepts into a more common language so that patients and their families can communicate with their health care providers and each other."

David Kupfer, M.D., chair of the *DSM-5* Task Force and a member of the advisory panel for the new consumer guide, says it will help patients and families communicate with health care providers and each other.

Kupfer is also one of a six-member panel of editorial advisers who oversaw the writing and editing of the new layperson's guide. In addition to patients, families, and the general public, others who will find the book useful include nonpsychiatric health care professionals, teachers, counselors, clergy, employers—anyone who deals with people and needs to know more about mental illness and its treatment.

(For descriptions of the first six chapters of the guide, see previous issues of *Psychiatric News*.)

The seventh through ninth chapters describe eating and feeding disorders, elimination disorders, and sleep-wake disorders.

There are several major changes in *DSM-5* for eating disorders of which patients and families will want to take note, including the elimination of amenorrhea from the criteria for anorexia nervosa. (An important feature of the new guide is that many chapters include an illustrative patient story, drawn from real-life clinical vignettes, with names and other identifying information removed. To read "Helena's Story" about a teenage girl with anorexia, see box at right.)

Perhaps the most noteworthy change to the chapter on eating disorders is the inclusion of a new diagnosis—binge eating disorder—for individuals who experience persistent, recurrent episodes of overeating marked by loss of control and significant clinical distress.

In an interview with *Psychiatric News* in 2013, Timothy Walsh, M.D., chair of the *DSM-5* Work Group on Feeding and Eating Disorders, said an enormous amount of research in the last several decades justifies the inclusion of binge eating disorder. Walsh said the criteria—which describe persistent episodes of overeating at least once a week, marked by loss of control and clinically significant distress—are sufficiently restrictive to differentiate the diagnosis from the kind of periodic overeating that is normative in contemporary society.

The new guide describes binge eating disorder as follows: "People with binge-eating disorder often eat unusually large amounts of food. This overeating is often done in secret. People with the disorder can't resist the urge to eat and feel shame and guilt once they stop. Unlike bulimia nervosa, the binge episodes are not paired with purging through vomiting or other means."

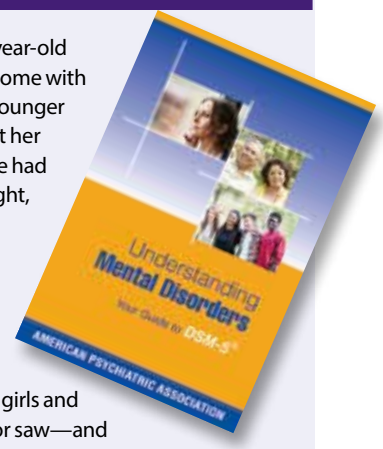
Kupfer, in an interview with *Psychiatric News*, said the eating disorders chapter will be of great interest to parents, young people, primary care clinicians, and educators. "I think what is particularly exciting is that even in the relatively short period since *DSM-5* was published, we are beginning to see the validation of these new disorders as well as the development of new potential treatments for binge eating," he said.

Elimination disorders, describing disorders predominantly seen in young children, will likewise be of interest to parents. The new guide explains that "[p]eople with elimination disorders have problems urinating (passing urine from the bladder), called enuresis, or defecating (passing stools from the bowels), called encopresis. They pass their urine or stools into bedding, clothing, or other inappropriate places. Both disorders can occur during the day or at night. A person can have one or both disorders at the same time. These disorders are most often first diagnosed in children, after the age when a child is expected to be toilet trained. The disorders occur less often in teens and adults."

An important feature of the new guide is the inclusion throughout the book of user-friendly tips for self-care and management of psychiatric conditions, even when under the care of a professional. So for elimination disorders, for example, the book offers the follow-

see **DSM *Guide*** *on page 26*

Helena's Story



Helena was a 16-year-old girl who lived at home with her parents and younger sister. Throughout her teenage years, she had been normal weight, but she worried a great deal about her body weight and shape. She often compared her body weight with that of other girls and women she met or saw—and then judged herself as too heavy.

Often, Helena checked her body weight by looking in the mirror.… At 15, she decided to become a vegetarian and began to cut out many foods from her diet. She was 5 feet 6 inches tall and weighed 125 pounds at age 15, but by her 16th birthday she had dropped to 110 pounds.… Time spent on her weight concerns took the place of other activities she used to enjoy, such as school work and having fun with friends. She became more alone. And she kept losing weight. Her parents became more alarmed about her weight loss and behavior. They talked about this between themselves and started watching and checking her eating behavior at meals. They urged her to eat more often, without success. She kept losing weight, and six months later she weighed 98 pounds. Helena appeared very thin. She often was withdrawn, hard to talk to, and distracted. She seemed weak—but did heavy exercise twice each day. She preferred to stand or pace rather than to sit and relax. Because of their concerns, her parents took Helena to see the family doctor for an evaluation. Helena was diagnosed with anorexia nervosa, restricting type. Her low food intake, low weight (BMI of 15.8), frequent exercise, and constant concern about her body weight despite being very thin are hallmarks of the diagnosis.

Check Out the New Guide

While you are at APA's 2015 annual meeting in Toronto, be sure to stop by the American Psychiatric Publishing Bookstore and page through *Understanding Mental Disorders: Your Guide to DSM-5*. This is the essential resource on mental illness you've been needing to recommend to patients, families, and community members.

APA members get a 20 percent discount on all APP purchases; resident-fellow members get a 25% discount.

PROFESSIONAL NEWS

Varenicline Helps in Gradual Smoking Reduction

Brian Jackson/Shutterstock

Previous studies indicate that cigarette smokers make an average of two attempts each year to quit smoking, suggesting a need for the development of more-effective therapies.

BY VABREN WATTS

Clinical guidelines from the Agency for Healthcare Research and Quality recommend promoting smoking-cessation aids that will help cigarette users quit smoking abruptly, though research suggests that 44 percent of cigarette smokers prefer to quit through a more-gradual approach such as a reduction in the number of cigarettes—implying that more-effective therapies are needed to meet the demands of some patients seeking abstinence from smoking.

To address the preferences of these smokers, researchers from the Mayo Clinic Nicotine Dependence Center conducted a large-scale study to determine the efficacy and safety of the smoking-cessation drug varenicline in increasing smoking abstinence rates through gradual smoking reduction.

"This study is important because it opens the door to treatment for approximately 14 million smokers who have no intention of quitting in the next 30 days but are willing to reduce their smoking rate while working toward a quit attempt," said lead author Jon Ebbert, M.D., a professor of medicine and researcher in tobacco cessation. "In the past, these smokers may have not received medication therapy, and we want them to know that different approaches are available."

According to the researchers, prior studies of pharmacotherapy-aided reduction have examined nicotine-replacement therapies that deliver nicotine through methods independent of tobacco, such as a skin-adhesive patch or chewing gum. Varenicline is a nicotine receptor partial agonist and key ingredient in the smoking-cessation drug Chantix (*Psychiatric News*, October 10, 2013). Recent studies have shown varenicline to be efficacious in increasing smoking abstinence rates in those cigarette users seeking to quit smoking abruptly, but the current study is one of the first, the researchers noted, to investigate the pharmacotherapy's effectiveness in those seeking a gradual method for smoking cessation.

Ebbert and colleagues randomly assigned 1,510 cigarette smokers to receive 1 mg of varenicline or placebo for 24 weeks. They recruited smokers who were not willing or able to quit smoking within the next 30 days but willing to reduce smoking and make an attempt to quit such behavior within the following three months.

The results, published in the *Journal of the American Medical Association*, showed that 32 percent of the varenicline cohort achieved continuous abstinence during weeks 15 through 24, compared with 6.9 percent in the placebo cohort. In addition, the researchers observed that individuals in the varenicline group were three times more likely than the placebo group to maintain abstinence six months after treatment. Rate of serious adverse events did not differ statistically among the cohorts.

"Smokers should know that varenicline can help them quit smoking if they want to reduce their smoking prior to completely stopping," said Ebbert. "It's an effective and safe way to increase long-term smoking cessation."

The researchers speculated that "the mechanism of varenicline action as an aid to gradual cessation could relate to a reduction in cigarette craving or a blockade of the reinforcing action of nicotine through partial agonist activity at the nicotine receptors," subsequently giving patients the confidence to quit smoking.

The researchers concluded that though guidelines from the U.S. Public Health Service and others recommend abrupt abstinence from cigarette use with smoking-cessation aids, the current varenicline-based approach allows clinicians to choose from more therapeutic options when caring for patients who are seeking to slowly wean themselves from smoking.

The study was funded by Pfizer, which manufactures the Chantix brand of varenicline. PN

An abstract of "Effect of Varenicline on Smoking Cessation Through Smoking Reduction" is posted at http://jama.jamanetwork.com/article.aspx?articleid=2110968.

Research Into Genetics of Autism Points to 'Uniqueness' of Each Child

Genome-sequencing techniques that look at data from tens of thousands of individuals are a first step to teasing out significant variations in autism spectrum disorders.

BY AARON LEVIN

Understanding the genetic origins of autism spectrum disorders has come a long way over the last decade but still has a long way to go to produce clinically useful data, said genetics researcher Evan Eichler, Ph.D., in a February 18 talk at the National Institutes of Health in Bethesda, Md.

"We have a handle on perhaps 30 percent of the genetic 'cause' of autism now, but we haven't proven the case for more than 1 to 2 percent," said Eichler, a professor of genome sciences at the University of Washington in Seattle and a Howard Hughes Medical Institute investigator.

Much of the progress in recent years has come through use of a "genome-first" method, looking for large but rare copy-number variations (CNVs).

The approach involves genome- and exome-sequencing samples from thousands of individuals with developmental delays but with no family history of autism, then also sequencing both parents and at least one unaffected sibling. Results are then compared with data from healthy controls.

"We start with the genetics and let that sort out individuals with a common genetic etiology," he explained. "Then we study those individuals more carefully to understand if there are subtleties about the phenotype that have been missed because of the generic diagnosis. You want to make sure you identify these distinctions early on at the molecular level."

Large CNVs (either deletions or duplications) are individually rare but collectively common, said Eichler. There is an excess of these large CNVs in patients with autism spectrum disorder compared with controls, and that excess predisposes them to the disorder.

The approach shows that CNVs are an important mechanism that leads to children having developmental delays or autism, even though any one variation appears only once or twice in 10,000 individuals, he said. Most are benign, and the ones affecting development may appear de novo in less than 1 percent of affected children. They are rare because they contribute in some way to the health status of the individual, and natural selection keeps them from reaching a high frequency in the population.

Hence, one might say that every child with autism is unique because a different mutation in a different gene is responsible for the outcome, said Eichler.

"The chances of a pediatrician seeing two children with the same genetic cause in 30 years is almost zero," he said. There are now about 200 likely candidate genes, but that is likely a fraction of the real total that produces an autism phenotype.

Through 2014, researchers worldwide have compared 30,000 autism cases with 20,000 controls. Eichler cited several examples of genes that underscore the complexity of genetic studies in autism.

For instance, there were 13 truncating mutations of the gene CHD8 found in 8,813 cases, compared with none in 8,792 controls. About 87 percent of the patients had autism, 80 percent had macrocephaly, 73 percent had gastrointestinal problems until puberty, but fewer than 50 percent had intellectual disabilities.

CNVs in the DYRK1A gene pointed to eight mutations in 7,290 cases compared with none in 8,693 controls. Of the cases with this mutation, 100 percent had intellectual disability, 100 percent had

see ***Autism*** *on page 10*

PROFESSIONAL NEWS

Several Strategies Could Reduce the Staggering Global MH Burden

The National Institutes of Health reports that schizophrenia, depression, alcohol dependence, and other mental disorders make up 13 percent of the worldwide disease burden suggests a strong demand for more mental health care on a global scale.

BY VABREN WATTS

While some U.S.-based psychiatrists are addressing barriers faced by the national mental health care system, some psychiatrists are tackling mental health care issues on a global scale.

Last month, Pamela Collins, M.D., M.P.H., director of the Office for Research on Disparities and Global Mental Health at the National Institute of Mental Health (NIMH), visited APA headquarters to discuss a range of issues that affect mental health and mental health care from a global perspective.

"Global health does not equate to international health," Collins said. "Global health emphasizes the importance of interconnections among countries and is informed by globalizing influences. It emphasizes equity, respect, and human rights." According to the World Health Organization, more than 450 million people across the globe suffer from mental illness, which, according to NIMH, contributed to an economic burden of more than $2.5 trillion globally in 2010.

Collins, who served as guest speaker at APA's February Lunch and Learn event in celebration of African-American History Month, said that access to adequate mental health care is a major problem everywhere.

"Lack of adequate mental health care is a constant that we see in high- , middle- , and low-income countries," she said in a later interview with *Psychiatric News*. "But it is even magnified in places where there are so few mental health providers per population," such as Rwanda, where no more than seven psychiatrists serve a population of 9 million people.

Vabren Watts

Pamela Collins, M.D., M.P.H., of the National Institute of Mental Health says that the lack of mental health services is a global problem that needs to be addressed globally.

Collins stated that though the United States has shortages of mental health care providers, particularly in rural areas, the country's mental health care infrastructure is different from that in less-affluent countries. "Here, we have implemented some technological solutions to address the lack of providers, such as telepsychiatry. This allows an avenue for some of our citizens to access quality care, but even telepsychiatry is not available everywhere in this country."

Collins told *Psychiatric News* that

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Depression

continued from page 1

of cognition's role in the definition, research, diagnosis, and treatment of depression.

"Cognitive deficits are associated with poor treatment response, noncompliance with antidepressant treatment, increased suicide risk, and poor return to employment," said Diego Pizzagalli, Ph.D., a professor of psychiatry at Harvard Medical School. "But we see only moderate effect of treatment on cognition, even as depression symptoms abate."

In addition, both cognition and mood may be independent of functional deficits, Insel noted. "Maybe we should not spend a lot of time on intermediate measures and look more at performance measures like going back to work," he said.

He pointed out how little is known about cognition and its relationship to depression. Meta-analyses examining the state of the science have been "underwhelming" because they were limited by heterogeneity and highly variable assessments and were not linked to the patients' functioning, he said.

Current treatment options are inadequate, added Insel in an interview with *Psychiatric News* after the workshop. But part of the problem in developing new treatments—whether medications, devices, or psychotherapies—is the lack of universally accepted standards of what and how to measure.

Aaron Levin

Government, industry, academic researchers, and clinicians have to collaborate on standards for addressing cognitive dysfunction in depression, say Thomas Laughren, M.D. (left), and Thomas Insel, M.D.

Government, industry, academic researchers, and clinicians must settle on common data elements and ways to measure them easily so as to perceive meaningful change. Doing so means deciding which domains of cognition should be measured, which assessments are best for doing so, how they can best be obtained from patients, and what study designs would work best at revealing the answers.

"What's missing is a framework for having these discussions," said Laughren. "We need to continue and find one that will lead to something that summarizes where we are, where we could go, and how we will innovate, design trials, and measure outcomes. The drug companies won't enter the arena without some clarity."

Someone must ultimately produce a guidance document to provide some structure for continuing the February discussion, Laughren added. That might be the FDA or NIMH but might also be a semi-independent entity like the Measurement and Treatment Research to Improve Cognition in Schizophrenia, an NIMH initiative that a decade ago sought to stimulate the development of medications to improve cognition in schizophrenia.

"So the challenge is to think about mechanisms, but from an explanatory-model perspective, not just looking at symptoms or objective measures of functioning," said Amit Etkin, M.D., Ph.D., an assistant professor of psychiatry and behavioral sciences at Stanford University. "But ultimately, we also have to ask patients about what they care about changing in their lives." PN

More on "Enabling Discovery, Development, and Translation of Treatments for Cognitive Dysfunction in Depression: A Workshop" is posted at http://www.iom.edu/Activities/Research/NeuroForum/2015-FEB-24.aspx.

MEMBERS IN THE NEWS

Psychiatrist Is Innovator In Trauma Treatment, Education

Psychiatrist Paula Panzer, M.D., brings decades of experience to the cutting edge of trauma treatment and theory to the helm of a human services agency serving more than 35,000 New Yorkers.

BY EVE BENDER

As soon as she began her psychiatry residency at the New York State Psychiatric Institute/Columbia Presbyterian Medical Center in the late 1980s, Paula Panzer, M.D., knew she was interested in better understanding trauma and its effects on the patients she was seeing.

"I began to hear stories of patients' lived experiences and their treatment at the hands of people who should have been protecting them," such as parents and guardians, she told *Psychiatric News*. The urge to discover the facts surrounding the disproportionate exposure of women to trauma drove most of her work from that time forward.

With much to be discovered about trauma, Panzer was uniquely positioned to forge collaborations with private and government funding agencies, communities, coalitions, and even the survivors to learn and teach others about trauma-informed care and trauma-specific services.

Today, these partnerships remain an essential part of her role as chief clinical and medical officer of the Jewish Board of Family and Children's Services), a social-services agency serving 35,000 New Yorkers in New York City and suburban Westchester County. "My career in trauma has informed the way I think and operate in my current role," said Panzer.

After residency training, Panzer, then working with Columbia University psychiatrist Mindy Fullilove, M.D., received funding for research and training projects with a focus on women and families to better understand their exposure to trauma at the height of the crack-cocaine epidemic in New York. "We were trying to create a language to describe how childhood trauma exposure led to a cycle in which these women became more likely to engage in unsafe behaviors, thereby leading them to experience more trauma." The women also became more vulnerable to HIV and mental health challenges, she noted.

She worked in a variety of settings, including at a substance abuse clinic, with a mobile outreach team, and at a multidisciplinary AIDS housing and treatment program. Her experience working at a domestic-violence shelter run by the Jewish Board enabled Panzer to become aware of trauma occurring on a daily basis and to see eventual recovery in the clients with whom she worked.

Panzer began to teach others what she knew about trauma, much of which came directly from her clients. "I learned how important it was to partner with my clients," she said. In the mid-1990s, Panzer co-wrote a trauma treatment curriculum called "Connecting and Coping" for use in group settings for both women and men recovering from substance use issues and dealing with trauma. "They taught me that the training must be relevant, practical, and culturally competent," she remarked.

Paula Panzer, M.D.

Paula Panzer, M.D.: "As a community psychiatrist, I am driven to change the world for the better. If I cannot change the world, then I can at least help people cope with the realities of the world."

Trauma Curriculum Developed

She created a course at Columbia University for PGY-3 residents called Traumatic Stress Studies in 1993 and has been teaching it since. She also developed a similar course that she teaches to public-psychiatry fellows.

In her later role as deputy chief psychiatrist and associate director at the Jewish Board's Center for Trauma Program Innovation, Panzer began to focus on creating trauma-informed care, to ensure that systems of treatment do not retraumatize patients who have already experienced a trauma but instead promote hope and resilience. Through training materials and services administration, Panzer advocates for systems that are welcoming, safe, and collaborative and promote healing.

Following the terrorist attacks of September 11, 2001, Panzer provided crisis intervention to survivors and trained many of her colleagues and staff at the Jewish Board to do the same.

These trainings emphasized the importance of self-care for clinicians both in and out of the workplace, she said. "Every time we do a trauma training, we talk about how to prevent secondary trauma" while helping others deal with its aftermath. Working in teams is helpful, Panzer said, as is having an opportunity to discuss cases with others in a structured and supportive environment. It is vital to take breaks while helping clients cope with trauma, Panzer noted, and to balance trauma work with self-care, including activities outside of work. She also advises mental health professionals to seek treatment for their own experiences with trauma, if any, so that patients' stories of trauma do not retraumatize them.

Understanding 'Structural Racism' Key

In her current role at the Jewish Board, Panzer strives to ensure that all service delivery is trauma-informed, recovery-oriented, person-centered, and culturally competent. She also acknowledged that an initiative at the Jewish Board has taught her to understand the process of confronting structural racism in a human-services agency. This involves addressing disparities in program staffing, promoting understanding about racism, and raising awareness about how internalized and institutionalized racism are barriers to meaningful relationships with communities, she said.

APA Deputy Medical Director Annelle Primm, M.D., M.P.H., told *Psychiatric News* that APA has long valued Panzer's efforts to improve patient care. "For many years, Dr. Panzer has been a leader at the vanguard of ensuring that principles of recovery-oriented, trauma-informed, culturally competent, and person-centered care

see ***Trauma*** *on page 25*

Planning to Attend APA's 2015 Annual Meeting? Be Sure You Know Travel Requirements

With the 2015 APA annual meeting being held in Toronto, Canada, there are several travel considerations of which members attending the meeting should be aware.

All travelers to Canada, including those from the United States, must present a valid travel document showing proof of citizenship, such as a passport, birth certificate, or permanent resident card, upon entry to Canada. They must also satisfy an immigration officer that they have "ties, such as a job, home, financial assets, and family, that will take [them] back to [their] country of origin." Permanent residents of the United States who are not citizens should carry their Resident Alien Card. Those traveling with a child under age 18 need the same type of documentation of citizenship status for the child.

Some visitors, depending on country of origin, may also need a medical exam and a letter of invitation from the organizer of the event they are attending in Canada. Visitors from many countries will need a visa to enter Canada. Information about visas, including requirements and locations worldwide for applying for a Canadian visa, is posted at www.cic.gc.ca/english/information/offices/vac.asp. Don't wait until just before the meeting to begin the visa application process! Travelers are also advised that their passport should have six months' validity from the date of entry.

Canada cautions that "if you are a foreign student, temporary worker in the U.S., or visitor in the U.S. who wants to return to the U.S. after visiting Canada, you may encounter difficulties entering Canada without your passport or a Canadian Temporary Resident Visa (TRV). Because your status in the U.S. does not confer any status in Canada, or necessarily give you the right to re-enter the U.S., you should check with an office of the U.S. Immigration and Naturalization Service before leaving the U.S. to make sure you have all the necessary papers to return to the U.S." Information is posted at www.cbp.gov/travel/international-visitors.

Upon returning to the United States, the U.S. government says that all travelers must present a valid passport, though other forms of identification may be acceptable, depending on the traveler's circumstances. Legal residents must present a valid, nonexpired Green Card. Information is posted at www.getyouhome.gov.

COMMUNITY NEWS

U.S. Medical Student Takes Poster Prize at Oxford

Prizewinner's research supplies insights into both mental illness and India's complex society structure.

BY AARON LEVIN

A longstanding interest in the mental health of homeless people led one medical student to a research project in India whose results garnered her the *Lancet Psychiatry* Poster Prize at the University of Oxford's 2014 Mental Health Conference.

Anita Rao is a third-year student at Loyola University Chicago Stritch School of Medicine. Her father, Murali Rao, M.D., is chair of psychiatry and behavioral neurosciences at the Loyola University Medical Center. Growing up with a psychiatrist stimulated an early interest in mental health and her decision to major in international health at Georgetown University as an undergraduate. She began her premed studies only in her senior year at Georgetown.

"She was always very idealistic, even as a little girl," recalled her father in an interview. "She was always interested in global health from a policy point of view, but I think she wanted to be a physician to be a more effective advocate in that field."

While at Georgetown, she volunteered at a shelter in Washington, D.C., for homeless men with mental illness. "I loved the experience," she told *Psychiatric News*. "It changed my life."

Rao's interest in policymaking led her to spend a semester on a Running Start/Walmart Star Fellowship. The program places young women who are college students or recent graduates in the offices of women members of Congress. Rao spent her fellowship working with Rep. Karen Bass (D-Calif.). Rao turned down a position as a legislative correspondent on Bass's staff to begin medical school.

Her experience at the Washington homeless shelter ultimately led to her poster topic, a study of homeless mentally ill women in India that was the basis of her senior thesis at Georgetown. In India, she worked for five months at the Manasa Transit Care Center, a psychiatric rehabilitation facility outside the city of Mysore.

Loyola University

Medical student Anita Rao's volunteering at a homeless shelter for mentally ill men started her on a research path that led her to India.

"Most of the women there arrived in a psychotic state," she said. "They came from other regions within India and spoke different languages, and as a result, they were physically, socially, and culturally isolated."

When Rao investigated their cases for her research, she found a striking paradox. In general in India, there is a strong social and family support system for people with mental illness: "The family is expected to care for them, especially for women, who are often unprepared for life outside the home."

But when she looked at the family structure of the women in her study before, during, and after they became homeless, she found that some breakdown in that pattern had occurred.

"Either their primary caregiver had died, or they were abandoned by family members after family interaction worsened following the onset of illness," she said.

The women stayed at Manasa for one to 10 months before being returned to their families, perhaps too briefly to achieve full psychiatric remission, she said.

"There appeared to be little psychosocial rehabilitation or education of the family, and so many of the women ended up back on the streets, only to be returned to Manasa again," she said. "That's something that needs work."

Still, she was impressed by the deep social connectedness she saw in Indian society, something she wished was more present in the United States.

Rao was pleased to be awarded the *Lancet* prize but now is concentrating on her medical school studies. "I just hope I can maintain my idealism in the face of the need to learn so much," she said. She looks forward to entering a residency program in psychiatry and neurology after graduation. PN

Autism

continued from page 6

microcephaly, 83 percent had autism with impaired expressive language, 89 percent had late-onset epilepsy, and facial and foot abnormalities were also common.

For the ADNP gene, the researchers found 10 loss-of-function mutations in 5,776 patients, compared with just one in 8,231 controls. However, the pattern of symptoms was quite different in this group: 100 percent had intellectual disability, 100 percent had autism spectrum disorder, 90 percent showed almost complete loss of expressive language, and 88 percent had a high hairline and frontal bossing indicating early brain overgrowth.

"ADNP is now seen as a specific syndromic form of autism," said Eichler.

Teasing out different subtypes of autism will be a first step to finding more specific treatments, he said: "Treating microcephaly is not the same as treating macrocephaly."

Overall, the study of CNVs led to rethinking of the approach to developmental delays and autism, suggesting that they are not inherited but are sporadic, de novo diseases.

"Genetics is just the beginning," Eichler stated. "Once you know what type of autism a child has, you will know what protein-protein interaction network is involved. If there is a therapy, it will be applied to that subset of patients. This is a model of precision medicine, but it starts by working out the genetics." PN

An abstract of "The Contribution of de Novo Coding Mutations to Autism Spectrum Disorder" is posted at http://www.nature.com/nature/journal/v515/n7526/full/nature13908.html.

ETHICS CORNER

End-of-Life Decisions: A Guide for Psychiatrists

BY CLAIRE ZILBER, M.D.

Physician-assisted death entered the Colorado legislative agenda in 2015 but failed to pass. Eighteen other states are considering similar bills, reflecting considerable national momentum. The Colorado Psychiatric Society (CPS) Ethics Committee explored the question, "How should an ethical psychiatrist interact with this law?" What follows is a brief history of physician-assisted death in the United States, a summary of the legislation, and guidance about how to interact with this highly charged topic.

Physician-assisted death entered public awareness in 1987, when Jack Kevorkian, M.D., a pathologist, advertised his physician-assisted suicide services in Detroit newspapers. His Michigan medical license was revoked in 1991. The subject gained some legitimacy in the medical community when Timothy Quill, M.D., a palliative care physician at the University of Rochester, published "Death and Dignity: A Case of Individualized Decision-Making" in which he described giving a prescription for barbiturates to a patient with leukemia who desired to die.

In 1997, Oregon voters passed the Death With Dignity Act (DWDA). As of January 2014, 1,173 people have received DWDA prescriptions in Oregon, and 752 people (64 percent) have died from ingesting those medications. In 2008, voters in the state of Washington passed a similar law. Physician-assisted death was legalized through court rulings in Montana (2009) and New Mexico (2014) and through legislative action in Vermont (2013).

The topic came to Colorado in February 2014, when Charles Selsberg advocated in the *Denver Post* for the ability to end his life and thus avoid suffering months of helpless indignity from ALS. He ultimately died after 13 agonizing days by refusing food and water. The subject gained further national attention in fall 2014, when Brittany Maynard, a 29-year-old woman with a terminal glioblastoma, intentionally publicized her decision to move from California to Oregon so she could end her life.

Modeled on the Oregon law, the Colorado bill would have allowed patients with terminal illness to request a prescription for life-ending medication from their attending physician. The bill included safeguards: the patient must be an adult residing in Colorado and must make two verbal requests at least 15 days apart; the request must also be made in writing and witnessed by two people; a second consulting physician must confirm the diagnosis and prognosis; and if the attending physician is concerned that mental illness may impair decision making, an assessment must be performed by a psychiatrist or psychologist.

There are several ways in which a psychiatrist may be involved with a patient who wants to access life-ending medication under DWDA. The first of these is contained within the legislation. The bill required that a psychiatrist or psychologist evaluate "whether the individual is capable and not suffering from a psychiatric or psychological disorder that impairs his or her ability to make an informed decision," if the attending physician requests it. Richard Martinez, M.D., a forensic psychiatrist and ethicist, asserts that we must assess emotional as well as cognitive capacity when evaluating a patient's decision to end his or her life.

Such a determination is subjective. One psychiatrist may believe that moderately severe depression interferes with capacity for this particular decision, although not for other forms of medical decision making; another might disagree. The evaluation of a patient is not the place to take a political stance. The psychiatrist must be grounded in fundamental psychiatric principles; differentiate between depression and grief; and explore other motivations for seeking a hastened death, such as inadequate treatment of pain.

A patient might ask his or her treating psychiatrist to conduct the end-of-life, decision-making-capacity evaluation. Each case must be considered individually. For patients with chronic psychosis or severe personality disorders, the treating psychiatrist is likely the person in the best position to understand and assess the patient's capacity to request end-of-life medication. There may be other situations—for example, those with complicated transference and countertransference dynamics—in which performing the evaluation could be harmful to the treatment relationship, and a consulting psychiatrist should do the capacity assessment.

*see **Ethics Corner** on page 18*

Claire Zilber, M.D., is a member of APA's Ethics Committee and chair of the Colorado Psychiatric Society Ethics Committee.

ANNUAL MEETING

It's Easy to Find Great Food Without Emptying Your Wallet

Take a world tour through Toronto eateries, from pickerel tacos to pork-jowl ramen to poutine, for very little cash.

BY JOHN TESHIMA, M.D.

www.torontowide.com

Dining on a budget is certainly not difficult in Toronto, where an international population is cooking dishes from all parts of the globe and offering unique cuisines at bargain prices.

Toronto is a great dining city, but by no means do you have to max out your credit cards to indulge in a fabulous meal. If you want to eat well on a budget, there are lots of great options in Toronto, particularly as you move farther away from the heart of downtown. What follows are my suggestions for casual meals representing a world tour of cuisines.

Dining Near the Convention Center

The area closest to the venues where the APA annual meeting will be held is the land of corporate finance, but don't despair, moderately priced meals are still to be had.

Some moderately priced options include **Pizzeria Libretto** (155 University Avenue, [416] 551-0433, http://pizzerialibretto.com) for some of the best Neapolitan pizza in Toronto. **Osteria Ciceri e Tria** (106 Victoria Street, [416] 955-0258, http://osteriacicerietria.com), **La Betolla di Terroni** (106 Victoria Street, [416] 504-9998, http://labettola.ca), and **Terroni Adelaide** (57A Adelaide Street East, [416] 203-2093, http://adelaide.terroni.com) all feature fantastic pastas, pizzas, and other flavorful Italian fare. **Bannock** (401 Bay Street, [416] 861-6996, http://oliverbonacini.com/bannock.aspx) riffs on Canadiana classics. The pickerel soft tacos are an absolute must-have, and the duck poutine pizza will have you reaching for your Lipitor.

Ride the Ramen Wave

Ramen joints have been springing up throughout downtown over the past few years. Among the best are **Santouka** (91 Dundas Street East, [647] 748-1717, http://www.santouka.co.jp/en), which is part of a chain but provides the best all-around experience (get the melt-in-your-mouth pork jowl and ask for your noodles "hard"); **Sansotei** (179 Dundas Street West, [647] 748-3833, http://www.sansotei.com) with the creamiest tonkotsu broth; and **Kinton** (51 Baldwin Street, [647] 748-8900, http://www.kintonramen.com), with the best chewy noodles. **Ryus Noodle Bar** (31 Baldwin Street, [647] 344-9306, http://www.ryusnoodlebar.com) serves some interesting variations, including one with roast beef, arugula, and truffle oil. **Touhenboku** (261 Queen Street West, [416] 596-8080, http://www.touhenboku.ca) offers tasty chicken-broth-based bowls. And **Ramen Raijin** (3 Gerrard Street East, [647] 748-1500, http://zakkushi.com/raijin) features a tasty version with bamboo charcoal powder.

Finds in the Entertainment District and Queen Street West

The cheap restaurants in these areas are a weird mix of chic bohemian cafés and comfort-food takeout places. In the former category, the **Queen Mother Café** (208 Queen Street West, [416] 598-4719, http://www.queenmothercafe.ca) serves up tasty Thai-Laotian treats in addition to more standard fare. Just up the street on McCaul is **Manpuku** (105 McCaul Street, [416] 979-6763, http://www.manpuku.ca), which serves up delicious Japanese comfort food in a cafeteria setting. The udon bowls are impeccable. And for Vietnamese-inspired sandwich treats, definitely go to **Banh Mi Boys** (392 Queen Street West, [416] 363-0588, http://www.banhmiboys.com), especially for the fried-chicken steamed bao.

Near the clubs, you can help settle the Battle of the Burrito: **Burrito Banditos** (120 Peter Street, [416] 593-9191, http://www.burritobandidos.com) is home to the restaurant's original chef. **Burrito Boyz** (218 Adelaide Street West, [647] 439-4065, http://www.burritoboyz.ca) is home to the former's ex-partner. The halibut burrito should be your starting point for comparisons.

If you have come to Canada to try poutine (fries with cheese curds and gravy), there is a rivalry between **Poutini's** (1112 Queen Street West, [647] 342-3732, http://www.poutini.com) and **Smoke's Poutinerie** (218 Adelaide Street West, plus other locations, [416] 599-2873, http://www.smokespoutinerie.com) that is best assessed when you are ravenous at 2 a.m. after a long day at the convention center. Poutini's has a vegan version, and Smoke's has several veggie versions. After all that excess, the next day you can go to **Fresh** (147 Spadina Avenue, plus other locations, [416] 599-4442, http://www.freshrestaurants.ca) for a rainbow of healthy vegetarian food, including noodle or rice bowls that are capped with tofu and other goodies plus some surprisingly tasty sauces. Wash it all down with a smoothie or your detoxifying elixir of choice.

Dundas and Spadina Chinatown

The best Chinese food is now to be found in the region's farther reaches, but there are still several tasty options in the downtown Chinatown area. **Swatow** (309 Spadina Avenue, [416] 977-0601) is a great Chinese "greasy spoon" with incredible shrimp-dumpling noodle soup. **Lee Garden** (http://www.leegardenspadina.ca) has a slightly posher setting. It has the best deep-fried squid in town plus many other treats including the tofu pie (don't laugh). For a taste of northeastern China, you can go for the distinctly unglamorous basement confines of **Chinese Traditional Buns** (536 Dundas Street West, [416] 299-9011) for fabulous flavors, **Mother's Dumplings** (421 Spadina Avenue, www.mothersdumplings.com) for the aforementioned dumplings, or the slightly more genteel confines of **Asian Legend** (418 Dundas Street, www.asianlegend.ca).

For Vietnamese, **Anh Dao** (383 Spadina Avenue, [416] 598-4514) offers great noodle soups, vermicelli bowls, and fruit shakes. **Pho Hung** (350 Spadina Avenue, [416] 593-4274, www.phohung.ca) is an equally enjoyable option. For pan-Asian vegan, swing a few blocks east to **Vegetarian Haven** (17 Baldwin Street, [416] 621-3636, www.vegetarianhaven.com) or a few blocks west to **Café 668 Vegetarian** (668 Dundas Street West, [416] 703-0668, http://www.cafe668.com). Both feature soups with surprisingly hearty broths and tofu/tempeh/seitan in a variety of tasty guises.

When Your Sweet Tooth Can't Be Ignored

And now for dessert. For the best roasted-marshmallow ice cream anywhere, go to **Greg's** (750 Spadina Avenue, [416] 962-4734, http://gregsicecream.com). **Boreal Gelato** (1312 Queen Street West, [647] 352-7717, http://www.borealgelato.ca) serves some of the coolest flavors, including balsam (as in the tree) and rosemary shortbread. **Ed's Real Scoop** (920 Queen Street East and other locations, [416] 406-2525, http://www.edsrealscoop.com) mixes actual apple pie into said flavor. And for Asian gelato, **Kekou** (13 Baldwin Street, [416] 792-8858, http://kekou.ca) features flavors such as durian and Hong Kong milk tea. For chocolate addicts, **Soma** (443 King Street West and other locations, [416] 599-7662, http://www.somachocolate.com) will win you with the chili-based Mayan hot chocolate or with Old School, a bar filled with cacao nibs and cane sugar. PN

John Teshima, M.D., is an assistant professor of psychiatry at the University of Toronto.

REGISTER NOW!
MAY 16-20, TORONTO

Information on APA's annual meeting can be accessed at APA's Web site at http://annualmeeting.psychiatry.org/.

Member Registration: Go to http://annualmeeting.psychiatry.org/registration/individual-registration-information and click on "Member Registration."

Nonmember Registration: Go to above URL and click on "Nonmember Registration."

Low advance registration rates are now in effect, so register now!

Academic, Community Collaborations Create Powerful Partnerships

Collaboration between academic psychiatry and community organizations can create a win-win synergy.

BY MARK MORAN

"Alone we can do so little, together we can do so much."
—Laura Roberts, M.D., at APA's 2014 Institute on Psychiatric Services

For decades, the San Francisco Bay Area has been a port of entry for immigrants to the United States from countries on the Pacific Rim. In the late 1970s and throughout the 1980s, in the wake of the Vietnam War, the city and surrounding counties became a magnet for refugees from Vietnam, Cambodia, and other Southeast Asian countries.

Many of these newcomers brought with them a history of trauma related to the war and—especially in the case of Cambodian refugees fleeing the Khmer Rouge—exposure to war crimes, including torture. So it is not surprising that many also exhibited signs of posttraumatic stress disorder (PTSD) and other mental illnesses—although those signs and presenting symptoms may have been unique to the cultures from which they came and different from what psychiatrists may encounter in American patients.

Daryn Reicherter, M.D.

With an expertise in cross-cultural psychiatry, Daryn Reicherter, M.D., has helped forge a partnership between Stanford's Department of Psychiatry and a San Jose nonprofit serving refugees with war-related trauma.

"Cross-cultural psychiatry is about learning how to interpret *DSM* disorders as they present in people from other cultures speaking other languages," said Daryn Reicherter, M.D., a clinical associate professor of psychiatry and behavioral sciences at Stanford University School of Medicine.

Though not formally recognized as a subspecialty of psychiatry, it is a niche form of practice that, he said, "takes some extra layer of experience to get good at."

His interest in cross-cultural psychiatry led Reicherter more than a decade ago to begin working with the immigrant and refugee communities that had grown up in the Bay Area. In addition to work at Stanford community mental health clinics, Reicherter began seeing patients at the Center for Survivors of Torture, a project of Asian Americans for Community Involvement (AACI) in San Jose that serves survivors of trauma from Vietnam and Cambodia. Many of these individuals have now been in the United States for three or more decades, but the center also serves Bosnians, Iraqis, Iranians, and individuals from African conflicts fleeing warfare, persecution, and terror.

"In community mental health settings, psychiatrists are typically hired because they have a skill set for working with public-health systems," he told *Psychiatric News*. "But they are not necessarily hired for the niche problems that affect the population being served. I am working in these clinics in our community serving a variety of patients but also working specifically with survivors of trauma and war crimes who are presenting with PTSD, major depression, and related disorders."

Beyond his skill in interpreting *DSM*-classified mental disorders through the prism of culture, Reicherter brought another asset to the center—the prestige and imprimatur of Stanford. In time, both parties came to see a synergy of interests and to recognize that a formal partnership between the center and the Stanford Department of Psychiatry would greatly benefit the target population.

"With an attending physician at the clinic, we could make the case for turning it into an educational opportunity for our medical students and residents," Reicherter said. "So beginning in July last year, we have a resident rotation where our trainees can come to the clinic, do clinical work, and learn about cross-cultural psychiatry. It's very good for Stanford to have an opportunity like this for learning and very good for our patients. And what better way for the center to expand its mission than by having new generations of doctors-in-training getting hands-on experience with refugee populations? It's a win-win for everyone."

The partnership between Stanford and AACI is an example, Reicherter said, of the kind of synergy that can be created when academic departments of psychiatry work with community-based organizations to solve problems that might overwhelm either party alone.

*see **Collaboration** on page 28*

Partnerships Create Synergy

In a symposium at APA's 2014 Institute on Psychiatric Services titled "Alone We Can Do So Little, Together We Can Do So Much," Stanford Department of Psychiatry Chair Laura Roberts, M.D., discussed collaborative partnerships between academic psychiatry and community organizations. Among them, at Stanford and other institutions, are the following:

Laura Roberts, M.D.

The Vanderbilt Street Psychiatry Program at Vanderbilt University School of Medicine in Nashville works with local, nonprofit partners to provide support and psychiatric care to unsheltered homeless individuals.

Mindfulness Practice for Impoverished Youth. At Cesar Chavez Academy in East Palo Alto, seventh graders are learning mindfulness practice and yoga as a way to cope with the stress of life in a community with homelessness, shootings, and gang war. Stanford researchers hope the practice will help young people focus better in school and in life, with enduring positive effects.

Humanitarian Parole Project. Stanford psychiatry faculty and human rights attorneys traveled to Haiti after the 2010 earthquake to assess candidates for humanitarian parole on the basis of trauma-related mental health diagnoses. Faculty psychiatrists and child psychiatry fellows worked with local nongovernmental organizations to identify egregious cases of gender-based violence; evaluations in Port-au-Prince were completed for more than 100 women with follow-up via Skype. More than 60 individuals have qualified for parole into Canada or the United States, and Roberts said the program is seeking to expand tele-evaluative work to Nigeria and Syria.

The Center for AIDS Intervention Research (CAIR) in the Department of Psychiatry and Behavioral Medicine at the Medical College of Wisconsin is a multidisciplinary HIV prevention research center that is supported by an AIDS research grant from the National Institute of Mental Health. CAIR also receives grant support from other sources, including other institutes of the National Institutes of Health, the Centers for Disease Control and Prevention, the Wisconsin AIDS/HIV Program, and the Medical College of Wisconsin. CAIR has partnered with nongovernmental organizations in over 80 countries to address HIV. According to the CAIR website (http://www1.mcw.edu/cair.htm), ongoing projects include the Prevention of HIV Infection in High-Risk Social Networks of African-American MSM (men who have sex with men); Structural and Social Contexts of Substance Use, Violence, and HIV Risk Among Adolescent Gangs; Regular HIV Testing Among At-Risk Latino Men; High Risk Crack Use Settings and HIV in El Salvador; Evaluating Providers' Readiness to Enact PREP (HIV Pre-Exposure Prophylaxis); and Promoting Healthy Relationships Among LGBT Youth.

RESIDENTS' FORUM

How Mental Health Has Become a Hot Topic in Telemedicine

BY STEVEN CHAN, M.D., M.B.A., AND ARSHYA VAHABZADEH, M.D.

Could the era of Internet technologies and consumer electronics boost access to mental health care? Dr. Phil McGraw and numerous other exhibitors at the 2015 Consumer Electronics Show (CES) believe so.

At the CES Digital Health Summit, television talk-show host and Doctor on Demand cofounder McGraw presented his vision of how wireless and communications technology will boost wellness and mental health. McGraw highlighted how telemedicine must play a greater role in providing mental health care, or "tele-mental" health.

Steven Chan, M.D., M.B.A. (left), and Arshya Vahabzadeh, M.D. (right), are photographed with Phil McGraw, Ph.D., at the 2015 Consumer Electronics Show Digital Health Summit.

"It's hard to make that first appointment—and it's harder to keep it," said McGraw. "There is still a stigma when it comes to mental health. Telemedicine allows people to go past the initial hurdle."

The rise of camera-equipped smartphones, wearable devices, fitness trackers, and smart watches has attracted the attention of academic researchers in psychiatry and commercial health technology companies. Even nonprofit organizations, such as CareMessage and Medic Mobile, provide remote depression, anxiety, and medication management programs.

Telemedicine has grown in use in dermatology, radiology, critical care, and other medical specialties, taking advantage of increasing Internet bandwidth, speed, and availability. Psychiatry is joining other medical specialties, particularly with smartphones' ability to provide clear video and audio.

Doctor on Demand has a network of more than 300 psychologists who provide video therapy. The company also has a network of independently contracted physicians who are able to prescribe medications but not narcotics or pain medications.

It isn't just clinicians who are interested in this idea. The website FierceHealthIT reported in early January on how telemedicine and the patient-monitoring market could grow by about $5 billion by 2020, underscoring commercial interest and venture-capital funding in the industry.

With depression, anxiety, and other comorbid psychiatric disorders taking a toll on physical health, health care pro-

Steven Chan, M.D., M.B.A., and Arshya Vahabzadeh, M.D., are members of APA's Council on Communications. Chan is a resident in the research track at the University of California, Davis, School of Medicine Department of Psychiatry and an APA/SAMSHA Minority Fellow. Vahabzadeh is a resident in child and adolescent psychiatry at Massachusetts General Hospital and McLean Hospital and an APA/SAMSHA Minority Fellow.

viders and companies are realizing that physical health is not enough. Mental health plays a key role as well, and telemedicine can play crucial roles in integrated care consultation models and providing tele-mental health services for the unreachable.

According to Peter Yellowlees, M.D., a professor of psychiatry and director of the Health Informatics Program at the University of California, Davis, and a board member of the American Telemedicine Association, patients with social phobia, posttraumatic stress disorder, and social anxiety benefit greatly from telemedicine.

Satisfaction with telemedicine is frequently better than with in-person services, said Yellowlees of his research and clinical experience with telemedicine. "Children prefer this, along with anxious patients, paranoid patients, and people who hate driving."

Other devices have taken on increasing emphasis in behavioral health. Exhibitors showcased neurofeedback electroencephalography devices for stress reduction and autism, along with smartphone alcohol breath analyzers and fitness trackers to measure heart rate, heart-rate variability, steps, and sleep patterns.

Telehealth platform services like HealthLinkNow, MDLive's BreakThrough, Rock Health–funded Lantern (formerly ThriveOn), and Google's HelpOuts also provide smartphone apps for consumers to use to connect with psychotherapists. HealthLinkNow provides support for connecting to psychiatrists.

Indeed, telemedicine can boost access

*see **Residents' Forum** on page 25*

CLINICAL & RESEARCH NEWS

Escitalopram Linked to Improvement of Mother's, Child's Symptoms

Successful treatment of depression in mothers can sometimes be assessed via the manner in which they respond to their family, some experts say.

BY VABREN WATTS

Studies have shown that when symptoms of a depressed mother remit after treatment, her offspring's psychiatric symptoms decrease. A study published in *AJP in Advance* may shed light on antidepressant-treatment options that could lead to this domino effect.

Myrna Weissman, Ph.D., a professor of psychiatry and chief of the Division of Clinical and Genetic Epidemiology at the New York State Psychiatric Institute, and colleagues studied mothers with depression and their school-age children to com-

CLINICAL & RESEARCH NEWS

pare which antidepressants taken by the mothers might eventually lead to fewer psychiatric symptoms in their offspring.

"We have known for some time now that depression can be a familial disorder. The offspring of depressed parents—especially mothers—often have high rates of depression," Weissman told *Psychiatric News.* "Not until recently [did we find] that if a mother's symptoms of depression are improved, so would those of her children. This is important because not only is the well-being of the mother improving but also that of the child."

According to Weissman, in the previous studies finding an association between the remission of depression in mothers and reduced psychiatric symptoms in offspring, cognitive-behavioral therapy had been used. "In this study, we wanted to investigate whether the improvements could be seen in a controlled clinical trial with antidepressants, since medication is used more frequently in the treatment of depression than is psychotherapy."

The study subjects were 76 depressed mothers aged 18 to 65 and 135 offspring aged 7 to 17. Maternal participants were given escitalopram, bupropion, or a combination for 12 weeks. The offspring's psychiatric symptoms were assessed prior to maternal initiation of therapy and at study endpoint.

New York State Psychiatric Institute

Myrna Weissman, Ph.D., of the New York State Psychiatric Institute says that aggressive treatment of depression in mothers could result in a "big win" for the mother and her family.

Though the mothers in all three groups were able to achieve remission, escitalopram alone was found to be associated with statistically significant improvement in the mothers' depression and subsequent improvements in the offspring's psychiatric symptoms, whereas treatment with bupropion and combined bupropion and escitalopram therapy was not.

In addition, mothers in the escitalopram cohort were more likely to report improvement in their ability to listen to and talk with their children over the 12-week study than mothers in the bupropion or combined therapy groups. Children in the escitolapram group reported their mothers to be more caring after treatment.

"Antidepressants that reduce symptoms of anxiety and irritability—like escitalopram—may be necessary to properly assess the impact of the parents' remission on the well-being of their offspring," said Weissman.

The researchers noted that the findings highlight the importance of active treatment of depressed mothers, which may help improve the relationship between mother and child.

Weissman told *Psychiatric News* that she and her colleagues are conducting comparative studies with other medications to assess the effect of antidepressant-dependent remission in mothers on their offspring's psychiatric symptoms.

The study was funded by the National Institute of Mental Health. PN

An abstract of "Treatment of Maternal Depression in a Medication Clinical Trial and Its Effect on Children" is posted at http://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2014.13121679?journalCode=ajp.

Researchers Consider Infection as One Cause of Depression

Inflammatory reactions to bacteria or viruses may be key to the so-called "spread" of depression.

BY AARON LEVIN

Could major depressive disorder be the outcome of an infectious disease?

Considering that possibility might well open new approaches to understanding, preventing, and treating the disorder, according to Turhan Canli, Ph.D., an associate professor of integrative neuroscience in the Department of Psychology at Stony Brook University in New York.

His approach is "deliberately speculative" but warrants attention and action, wrote Canli in the online October 2014 *Biology of Mood and Anxiety Disorders*. "I propose that future research should conduct a concerted search for parasites, bacteria, or viruses that may play a causal role in the etiology of MDD."

Canli offers several arguments to support his point.

Patients with depression exhibit sickness behavior. Also, depression is significantly associated with infectious agents, including viruses like Borna disease virus, herpes simplex virus-1, varicella zoster, and Epstein-Barr virus. Parasites like *Toxoplasma gondii* may play a role.

John Griffin/Stony Brook University

Turhan Canli, Ph.D., hypothesizes that there is a variety of infectious pathogens that affect the central nervous system and may lead to depression.

"Among patients with diagnosed major depression or bipolar disorder, those with a history of suicide attempt had higher *Toxoplasma gondii* antibody titers," he said.

Could Intestinal Tract Be Involved?

Another possibility is the "leaky gut" hypothesis, suggesting that cytokines increase intestinal-tract permeability to lipopolysaccherides (LPS) from gram negative bacteria and that antibodies to the LPS are found at higher levels in depressed patients.

Even a study of exogenous retroviral sequences might be useful, given that "the search for genes linked to major depression has come up empty."

Nevertheless, Canli is not yet ready to identify a specific infectious agent that causes depression.

"I suspect that there is a wide variety of infectious agents out there that affect the central nervous system in their own way," he told *Psychiatric News*. "I also don't think that every case of depression is caused by an infectious agent. But given its prevalence, even a subset of patients would still add up to a large number of cases."

Role of Prenatal Infection Investigated

The literature on postnatal infection and risk of depression is sparse, commented Alan Brown, M.D., M.P.H., a professor of psychiatry and epidemiology at Columbia University Medical Center, the New York State Psychiatric Institute, and the Joseph L. Mailman School of Public Health. Brown has studied the effects of prenatal infection, as recorded in maternal antibodies, as risk factors for mental illness.

As far as he knows, there have been no studies on how rates of depression might correlate with disease outbreaks, although geographic variations in suicide have been observed, said Brown.

"However, there are multiple factors apart from infection that can influence these findings, and they are vulnerable to biases from the ecologic fallacy—correlations in populations may not reflect correlations within individuals," he said.

Infectious agents have been known to affect the brain and cause psychiatric disorders. Syphilis helped fill America's mental asylums in the late 19th century, for instance.

However, most infections that lead to behavioral changes don't do so by directly infecting the brain, said Andrew Miller, M.D., a professor of psychiatry and behavioral sciences at Emory School of Medicine and an expert on brain-immune interactions. "We can't seem to find an agent that's reliably associated with psychiatric disorders that is not also found in healthy persons."

The key may be not disease but the inflammatory reaction caused by disease, whatever its cause, given that higher levels of pro-inflammatory cytokines are found in people with depression. Another recent report, drawing on data from the Avon Longitudinal Study of Parents and Children in Great Britain, found that children with the highest levels of the systemic inflammatory marker IL-6 at age 9 were more likely to be depressed at age 18 (odds ratio=1.55), wrote Golam Khandaker, M.B.B.S., Ph.D., a clinical research fellow in psychiatry at the University of Cambridge, and colleagues in the October 2014 *JAMA Psychiatry*.

"There are many roads to inflammation and its effects on the brain," said Miller in an interview. "Inflammatory cytokines and activated cells that produce cytokines all get into the brain and ultimately interact with various neurocircuits, leading to prototypical behavioral responses that we see in infection. This can result in anhedonia or loss of motivation but also, paradoxically, anxiety and arousal."

When used as therapy for hepatitis-C or cancer, cytokines such as IL-2, IFN-α, or TNF-α appear to induce depressive and flu-like symptoms. "This is where my thinking appears to deviate from others'," said Canli. "Does generic inflammation account for the neural structural and functional phenotypes we see in depression? No. Is it plausible that there are pathogens that do? Absolutely."

He cites as an example the ability of *T. gondii* to form cysts in the hippocampus and amygdala of infected rodents.

"Who knows what other pathogens may exist that possess similar mechanisms?" he said. "Interventions that target only the immune response may bring symptom relief but would not address the root cause of the illness."

Canli suggested that the next step in testing his hypothesis should be large-scale studies of well-characterized patients and controls.

"The way to proceed is to search for evidence of infectious pathogens in tissue, fluid, or postmortem brain samples from depressed patients and compare those against healthy controls," said Canli. "There are molecular protocols that allow both the detection of known and the discovery of unknown pathogens. If such pathogens were discovered to be associated with depression, the hard work

see ***Infection*** *on page 25*

Ethics Corner

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If a psychiatrist, because of personal experience, religious belief, or moral conviction, cannot refrain from injecting his or her own opinion about self-directed death into the therapeutic process, then the psychiatrist should refer the patient to another clinician. In these instances it is important to help patients find the counseling they seek without imposing our own judgments. Responding with "I don't condone ending one's life prematurely, so I can't help you" conveys moral disapproval. Instead, "Let me help you find someone with more expertise on this topic" is neutral and assists the patient without compromising the physician's personal morality.

Another way a psychiatrist may be professionally involved with end-of-life decisions is in counseling patients who become terminally ill during the course of their treatment or who initiate treatment as a result of the terminal diagnosis. Some of these patients may want to consider ending their life through self-administered medication and may seek the impartial counsel of a psychiatrist to explore their feelings about this emotionally intense decision.

We also may become involved with this issue by counseling a family member whose terminally ill loved one has decided to end his or her life with self-administered medication. Whether counseling a terminally ill individual or a family member, the psychiatrist must maintain a therapeutic stance and remain open to helping the patient explore and understand his or her own feelings and reactions.

Ending one's life through a lethal dose of medication may be the right thing for a particular patient but is not always the right thing. For a nuanced and very readable discussion of this topic, see Atul Gawande's *Being Mortal* (pages 243-249). A more scholarly ethical analysis of the topic is provided by Tom Beauchamp and James Childress in *Principles of Biomedical Ethics, Sixth Edition*, (pages 177-185). PN

IOM Recommends New Name, Criteria For Chronic Fatigue Syndrome

Regardless of its name, chronic fatigue syndrome has psychiatric aspects that should continue to be addressed. Moreover, the underlying causes of the illness are still ambiguous.

BY NICK ZAGORSKI

Chronic fatigue syndrome (CFS) is an enigmatic condition; this illness can debilitate someone to the point where a simple household chore can be grueling, and even trying to concentrate mentally can be exhausting. At the same time, the condition remains routinely misdiagnosed or dismissed in the medical community.

The confusion over CFS is perhaps well evidenced by the wide variance in estimated prevalence, as recent data suggest it could affect anywhere from 800,000 to 2.5 million Americans. It is also seen in the nomenclature, as in addition to the vague term of CFS, this disease has been called myalgic encephalomyelitis, postviral fatigue syndrome, and others.

In an effort to rein in the various beliefs, diagnostic and otherwise, the Institute of Medicine (IOM) recently published a new report, at the behest of several federal public-health agencies, titled "Beyond Myalgic Encephalomyelitis/Chronic Fatigue Syndrome: Redefining an Illness."

Based on a comprehensive review of literature and input from patient, advocacy, and research communities, the report proposed a new name—systemic exertion intolerance disease (SEID)—and a new set of standardized diagnostic criteria. The IOM expert committee that composed the report believed these changes more accurately capture the central characteristics of this illness (see box).

"We hope that this report will finally give credence to a real disease with a physiologic basis and that all medical professionals treat it with the respect it deserves," said Theodore Ganiats, M.D., a professor of family medicine and community health at the Miller School of Medicine at the University of Miami and one of the IOM committee members.

"I do want to stress that while the report emphasized that SEID is a 'real' disease, that does not imply that psychiatric illnesses are not real," Ganiats continued. "The emphasis was meant to clarify that this disease is not just made up in a patient's mind."

Pointing out that cognitive impairment remains a critical element for a diagnosis of SEID, Ganiats noted that the psychiatric aspects of SEID should continue to be appreciated. In addition, as a serious chronic illness, SEID brings a greater risk of such accompanying mental health issues as depression or anxiety.

Michael Sharpe, M.D., a professor of psychiatry at the University of Oxford, believes this new designation might be a mixed blessing for patients.

"It appears that this change was driven more by patient preference than new science," he told *Psychiatric News.* "The underlying causes of this illness are still shrouded in ambiguity."

Relabeling CFS may indeed reduce stigma, but Sharpe worries that many people will still be misdiagnosed, while those given an SEID diagnosis may shy away from behavioral therapies that have demonstrated success.

"It doesn't work for everyone, but rehabilitation through programs like cognitive-behavioral therapy is a proven approach," Sharpe said. "Now with a new focus on the physical aspects of this condition, patients may lean toward getting more lab tests done to identify a disease process and possibly a pharmacological intervention."

On this topic, Sharpe also noted that the IOM report did not provide any recommendations for treatments, as it was beyond the scope of the report, though a major purpose in developing a new disease classification is to inform appropriate treatment options.

Akin to Ganiats' view, though, Sharpe does not discount the biological elements of SEID. "Often medicine doesn't seem to be able to hold the idea that an illness can affect both the mind and body," he said. "But in the case of chronic fatigue, and many other complex diseases, a clinician should not be put off in providing an assessment that takes both sides into account." PN

More information on the IOM report "Beyond Myalgic Encephalomyelitis/Chronic Fatigue Syndrome: Redefining an Illness" is posted at http://www.iom.edu/Reports/2015/ME-CFS.aspx.

Study Finds Immunological Evidence for Chronic Fatigue

Not long after the IOM issued its report stating that ME/CSF is a biological disease, researchers at Columbia University's Mailman School of Public Health provided some new evidence to support this stance. An analysis of blood samples from 298 ME/CSF patients and 348 healthy controls revealed that people who had recently acquired the disease (three years or less) had higher concentrations of several immune system–related chemicals known as cytokines; of particular note was the cytokine interferon gamma, which has been linked to fatigue following many viral infections. In the case of patients with long-term ME/CSF who had normal cytokine levels, the researchers believe it may be indicative of an "exhausted" immune system; such normalized immune profiles also point to the value of getting an early ME/CSF diagnosis, as it may offer unique treatment opportunities. The study was published in *Science Advances* and is posted at http://www.iom.edu/~/media/Files/Report%20Files/2015/MECFS/MECFS_ProposedDiagnosticCriteria.

FROM THE EXPERTS

Theory of Mind and the Psychoanalytic Model

BY ELIZABETH AUCHINCLOSS, M.D.

When we first began teaching our course on the psychoanalytic model of the mind to Cornell residents in the 1980s, some of the brightest PGY-2 residents used to confront my co-teacher and me with the question, "Why do we need a model of the mind? Can't we help our patients without it?" At the time, we responded to these students with arguments about good clinical practice, reminders about the biopsychosocial model, and other lofty arguments about the philosophy of mind. But things have changed. Ever since the field of psychiatry has become familiar with a fascinating idea called "theory of mind" (ToM), emerging from cognitive neuroscience in the late 1970s, the argument is quite different. As it turns out, having a theory of mind is not an option. The question becomes moot as to whether mental health professionals need a model of mind. We have one, whether we like it or not.

The concept of theory of mind suggests that we are all hardwired with the potential to develop a theory about how minds work—our own mind as well as those of other people. In their groundbreaking 1978 paper "Does the Chimpanzee Have a Theory of Mind?," cognitive scientists Premack and Woodruff used the phrase "theory of mind" for the first time to describe what cognitive psychologists had been discussing for a number of years, to designate specific capacity to (1) understand that other people have beliefs, desires, and intentions; (2) know that these beliefs, desires, and intentions might be different from one's own; and (3) form operational hypotheses, theories, or mental models about what these beliefs, desires, and intentions might be. Theory of mind (ToM, as it is often called) is something with which each of us is endowed as part of the equipment we use to get by in a world where complex interactions with others are part of everyday life. As an evolutionary biologist might put it, ToM is essential to survival in our evolutionary niche.

ToM begins as an innate potential in infancy and develops in a facilitating matrix of normal maturation, social interactions, and other experiences. Under normal circumstances, ToM can be shown to be present in children by about age 4. In adults, ToM exists on a continuum ranging from the elaborate, complex, and reasonably accurate to the rudimentary, barely functional, or virtually nonexistent. The ability of each of us to accurately represent what others are feeling or trying to do predicts how well we will perform in a variety of interpersonal tasks. At one end of the spectrum, individuals with autism, who often have specific defects in the ToM module,

see ***From the Experts*** *on page 26*

Elizabeth Auchincloss, M.D., is vice chair of graduate medical education, director of the Institute for Psychodynamic Medicine, and a professor of clinical psychiatry at Weill Cornell Medical College. She is also senior associate director of the Columbia Center for Psychoanalytic Training and Research. Auchincloss is the author of *The Psychoanalytic Model of the Mind,* which is available from American Psychiatric Publishing at http://www.appi.org/SearchCenter/Pages/SearchDetail.aspx?ItemId=62471#. APA members may purchase the book at a discount.

JOURNAL DIGEST

BY NICK ZAGORSKI AND VABREN WATTS

Video-Based Therapy Improves Engagement In Babies at Risk for ASD

While symptoms of autism may not become manifest in children until they reach age 3 or 4, several risk markers—such as inattention or disengagement—may be present during the first year.

As published in *Lancet Psychiatry,* a video-based family therapy can improve these social behaviors in infants at risk for autism, which might help reduce or even prevent autism symptoms in childhood.

The program is known as Video Interaction for Promoting Positive Parenting (iBasis-VIPP) and uses video-feedback sessions to help parents understand and adapt to their infant's individual communication style.

Fifty-four families with infants aged 7 to 10 months were randomly assigned to receive iBasis-VIPP or no intervention over a five-month period; all the infants chosen had an older sibling diagnosed with autism, thus increasing their risk. Families receiving the video therapy showed improvements in infant attention, engagement, and social behavior; the parents also improved by being less directive in their interactions.

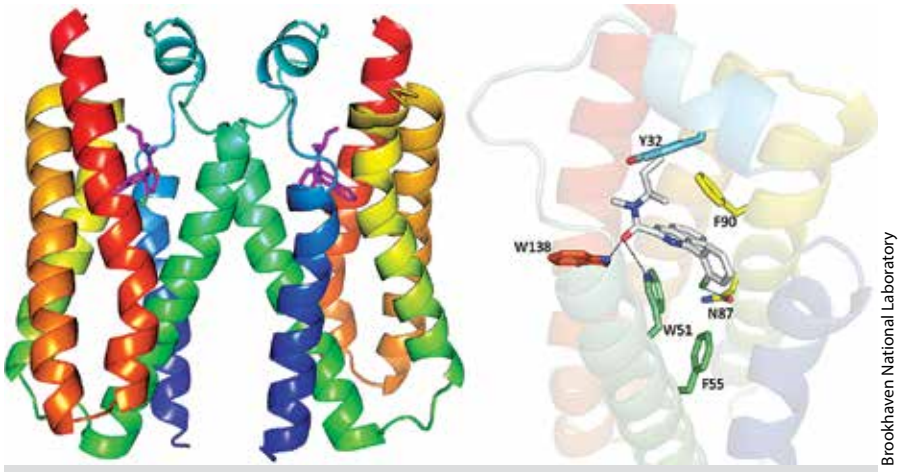
Green J, Charman T, Pickles A, et al. Parent-mediated intervention versus no intervention for infants at high risk of autism: a parallel, single-blind, randomised trial. *Lancet Psychiatry.* 2015 Feb; 2(2):133-140. http://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366%2814%2900091-1/fulltext

Researchers Solve 3D Structures of Valium-Binding Protein

Translocator protein (TSPO) is a protein found on the mitochondria that can bind cholesterol and other molecules. Those other molecules include benzodiazepines like Valium, which suggests that TSPO might contribute to Valium's side effects.

Two teams of scientists have solved the three-dimensional atomic structure of TSPO in various conformations, which could provide key architectural details to develop improved psychiatric drugs.

One team, led by researchers at Columbia University and Brookhaven National Laboratory, developed structures of TSPO both in a natural state and bound with a Valium mimic; they also carried out biochemical assays to provide more insight into what TSPO does in a cell.



Brookhaven National Laboratory

The new 3D structures of the Valium-binding translocator protein (TSPO) might provide key molecular details to help develop improved medications.

They found that TSPO can break down a hemelike molecule in red blood cells to create a compound they termed bilindigin; while the function of bilindigin is unknown, it bears close resemblance to a chemical that scavenges free radicals, suggesting a role for TSPO in controlling the cellular levels of reactive oxygen.

Meanwhile, researchers at Michigan State University solved a structure of a TSPO mutation associated with some cases of bipolar disorder (Ala/Thr 147). They found that one small change causes TSPO to bind cholesterol less strongly, providing insight into the physiology underlying some mood disorders.

These two studies were published concurrently in *Science.*

Guo Y, Kalathur R, Liu Q, et al. Structure and activity of tryptophan-rich TSPO proteins. *Science.* Jan 30, 2015; 347(6221):551-5. http://www.sciencemag.org/content/347/6221/551.abstract. Li F, Liu J, Zheng Y, et al. Crystal structures of translocator protein (TSPO) and mutant mimic of a human polymorphism. *Science*. Jan 30, 2015; 347(6221):555-8. http://www.sciencemag.org/content/347/6221/555.abstract

Anorexia Induces Epigenetic Changes Over Time

Behaviors associated with eating disorders such as anorexia nervosa (AN) can become more difficult to break over time. New work appearing in the *International Journal of Eating Disorders* has identified biological changes that may underlie this entrenchment.

A genomic analysis of women with AN and matched controls found that the chronicity of the eating disorder correlated with the degree of changes in DNA methylation—a chemical modification that affects gene expression—involving genes associated with anxiety, social behavior, immunity, and the functioning of the brain and peripheral organs. The longer the illness, the more pronounced the methylation differences.

These findings provide clues about the physical mechanisms that contribute to the emotional and psychological symptoms observed in people with AN. They also reaffirm the importance of identifying and treating patients with AN as soon as possible.

The research group will next explore whether remission of AN corresponds to a restoration of proper DNA methylation levels; the relationship between methylation and disease symptoms may help uncover new treatment strategies, the authors noted.

Booij L, Casey K E, Antunes J M, at al. (in press). DNA methylation in individuals with anorexia nervosa and in matched normal-eater controls: A genome-wide study. *International Journal of Eating Disorders.* DOI: 10.1002/eat.22374/

Psychopathic Offenders' Brains Can't Learn From Punishment

Criminal offenders with a diagnosis of psychopathy have higher rates of recidivism compared with other offenders. To improve rehabilitation potential, it's important to understand why.

An MRI analysis carried out by researchers in Canada and England suggests that abnormalities in key brain regions related to empathy, moral reasoning, and learning from rewards and punishment may explain these psychopathic tendencies.

The researchers analyzed data on 12 violent offenders with antisocial personality disorder and psychopathy (participants who scored 25 or higher on the Psychopathy Checklist-Revised [PCL-R] test), 20 violent offenders with antisocial personality disorder but no psychopathy, and 18 healthy nonoffenders. The volunteers completed an image-matching game that assessed their behavior when the game's consequences switched from positive to negative.

The offenders with both antisocial disorder and psychopathy showed increased activation in discrete brain regions in response to punished errors but decreased activation to all correct rewarded responses.

"Offenders with psychopathy may consider only the possible positive consequences and fail to take account of the likely negative consequences [when making decisions]," explained author Sheilagh Hodgins of the Université de Montréal. "Consequently, their behavior often leads to punishment rather than reward as they had expected."

This study appeared in *Lancet Psychiatry.*

Gregory S, Blair R, Ffytche D, et al. Punishment and the psychopath: an fMRI investigation of reinforcement learning in violent antisocial personality disordered men. *Lancet Psychiatry.* Feb 2015; 2(2):153-160. http://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366%2814%2900071-6/abstract

Low Serotonin May Lead to Lack of Responsiveness to SSRIs

Researchers may have discovered a clue as to why some people with depression are unresponsive to treatment with selective serotonin reuptake inhibitors (SSRIs), one of the most common antidepressant pharmacotherapies.

After exposing two mouse models to seven days of psychosocial stressors, genetic researchers from the Duke Institute for Brain Sciences observed that mice that were genetically deficient in serotonin were more vulnerable to displaying depression-like behaviors than their littermates with normal serotonin levels. Though longer exposures to stress led to depression-like behaviors in both groups, serotonin-deficient mice were unresponsive to treatment with a common antidepressant, fluoxetine. However, the researchers were able to alleviate treatment "depression" in serotonin-deficient mice by inhibiting hyperactivity of the lateral habenula, a region that may be involved in depression onset.

The researchers noted that since SSRIs work by blocking the ability of neurons to recapture serotonin, it makes sense that such antidepressants would be less effective in animals with already low levels of serotonin. "The next step," said lead author Benjamin Sachs, Ph.D., a postdoctoral fellow, "is to figure out how we can turn off the [lateral habenula] brain region in a relatively noninvasive way that would have better therapeutic potential." PN

Sachs B, Ni J, Caron M. Brain 5-HT deficiency increases stress vulnerability and impairs antidepressant responses following psychosocial stress. *Proc Natl Acad Sci U S A*. February 9, 2015. [Epub ahead of print] http://www.pnas.org/content/early/2015/02/03/1416866112.long

Basis of Inability to Regulate Emotions in Autism Identified

Young adults with autism spectrum disorder show differing brain activity from controls when trying to change their emotional perceptions of facial images.

BY NICK ZAGORSKI

While impaired social skills, communication difficulties, and repetitive behaviors are the core features used to diagnose someone as having an autism spectrum disorder (ASD), many parents and clinicians would say that emotional deficits such as irritability, tantrums, and aggressive behavior are also real elements of concern.

Emotional outbursts like tantrums are the leading contributors to stress among parents of ASD children and are the most common reason parents seek professional treatment. The only two Food and Drug Administration–approved drugs for autism—risperidone and aripiprazole—are prescribed to treat irritability.

The question at large is how two areas of deficiency—sociocommunication and emotion—overlap. Do children with ASD throw a tantrum as a result of frustrations at being unable to adequately express themselves?

New findings using functional magnetic resonance imaging (fMRI) suggest that the problems with emotional regulation in ASD lie deeper. When comparing fMRI scans of 15 young adults with ASD and 15 matched controls, the study found that the brain activity of the ASD subjects was different when trying to change their emotional perception of an image.

The tests carried out are known as cognitive reappraisals; after seeing an image of a face, the participants were given instructions to either "think positive" or "think negative," which may or may not be in tune with the facial expression.

As lead author Gabriel Dichter, Ph.D., an associate professor of psychiatry and psychology at the University of North Carolina School of Medicine, told *Psychiatric News*, "Cognitive reappraisal measures one's ability to take a deep breath following an emotional stimulus, as it were, and refrain from reacting inappropriately.

"With fMRI, we've now seen that the difficulties in emotion regulation observed in people with autism have a biological basis."

Specifically, the images revealed that subjects in the ASD group had a decreased capacity to upregulate activity in the nucleus accumbens brain region when instructed to think more positively and had a decreased ability to downregulate activity in the amygdala when asked to think negatively. There were also deficits in activity in the prefrontal cortex during both regulatory conditions.

Moreover, the degree to which brain activity was deficient correlated with the severity of the individual's autism, Dichter noted.

These differences were evident only in the imaging data. The ASD participants had the same subjective ratings of the faces as controls did—they could distinguish "happy," and both groups spent the same amount of time looking at and thinking about the faces, as measured by eye trackers and pupil dilation.

> "With fMRI, we've now seen that the difficulties in emotion regulation observed in people with autism have a biological basis."

"This is a very good pilot study that arrives at an opportune time as clinicians have become more cognizant of how strongly emotional regulation can determine long-term independence and well-being in people with ASD," said Antonio Hardan, M.D., a professor of psychiatry and behavioral sciences at Stanford University Medical Center and director of the center's Autism and Developmental Disorders Clinic. "The participants were all high-functioning adults with ASD, though, and it is important to test if these results are generalizable to the larger spectrum, especially those who have more severe autism."

As for the possibility that emotional regulation problems might be a core deficiency in ASD, Hardan noted these findings were intriguing. Nonetheless, "we need to determine if the same pathophysiology that leads to the social and communication deficits also leads to the emotional deficits, and the science is not there yet."

On a practical level, identifiable brain changes do provide a target for examining the emotional state of someone with ASD, which could be very useful in future clinical work.

"A big issue in autism clinical studies is obtaining personal insight," Dichter explained. "Unlike a depression study, where you can ask people about their mood, people with autism often have difficulty reporting how they feel. Now with fMRI we have a way to bypass those communication difficulties and look at emotional activity right at the source."

This study was published online in the *Journal of Autism and Developmental Disorders* as part of a special issue on emotion regulation. Funding was provided by grants from the National Institute of Mental Health and the Eunice Kennedy Shriver National Institute of Child Health and Human Development. PN

An abstract of "Neural Mechanisms of Emotion Regulation in Autism Spectrum Disorder" is posted at http://link.springer.com/article/10.1007/s10803-015-2359-z.

Trauma

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are applied at the individual level and the systems level of mental health and substance use services." Primm also noted that Panzer convened "groundbreaking" sessions and symposia on racism and trauma at APA's Institute on Psychiatric Services to help "make real the impact of racism on mental health as well as pathways for healing and wellness in its aftermath."

Panzer said that her involvement with APA and the American Association of Community Psychiatrists is vital to ensuring that community psychiatrists are properly integrated into systems of care and adequately reimbursed. She added, "I think psychiatrists are uniquely positioned to address health, wellness, the impact of trauma, and collaborations with communities—we are superb system thinkers." PN

Residents' Forum

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and visibility for psychiatry and mental health. By giving the keynote speech at an international conference that drew more than 160,000 attendees, McGraw's efforts boosted mental health's importance in the digital health space. Over the past decade, this industry has emphasized physical health care. Such media presence has also helped in the efforts toward destigmatizing mental health. Notable celebrities who do similar work and have spoken at APA's annual meeting include actor and PBS host Alan Alda, author Andrew Solomon, and former Congressman Patrick Kennedy.

As industry analysts at CES and as members of the APA Council on Communications, we felt that it was important that psychiatry be represented in digital health care and telemedicine and that we advocate for our patients who—as demonstrated in this past year's research literature—are willing to use it to manage their mental health.

There needs to be more research, adaptation, and design of these technologies to help our most vulnerable patients, those with severe mental illnesses, and patients with low English proficiency who have scarce access to cultural and language resources. Using existing technology infrastructure can address physical barriers and the cost of replicating and providing such services.

Technology companies are increasingly realizing that patients cannot have good health without addressing mental health. And though face-to-face encounters are still at the core of psychiatry, it is not suitable—or even affordable—for many. Barriers such as cost, time, and transportation prevent those from seeking out face-to-face encounters, and telemedicine addresses this. We are optimistic that the benefits that have advanced other medical fields will also benefit psychiatry. PN

Infection

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would begin to determine causality."

While his arguments may be plausible, cross-sectional studies may not provide the answers he seeks, cautioned Brown.

"The potential flaw here is reverse causality," he said. "Depression itself can affect the immune system, increasing vulnerability to depression and confounding results."

Miller advocated a step-by-step approach, first establishing that inflammation contributes significantly to a subset of depression. "Then we can look at where the inflammation is coming from and how we can stop it other than directly blocking it," he said. PN

"Reconceptualizing Major Depressive Disorder as an Infectious Disease" is posted at http://www.biolmoodanxietydisord.com/content/4/1/10.

DSM Guide

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ing helpful hints to parents of children who have enuresis or encopresis:

- When accidents happen, maintain a neutral and matter-of-fact, problem-solving attitude. This helps the child not to be afraid of reporting accidents.
- The child who had the accident can help with the cleanup of soiled bedding and clothing in age-appropriate ways, such as putting soiled clothes in the washing machine, cleaning himself or herself as best he or she can, or helping to put clean sheets on the bed. These tasks are performed by the child to help him or her take part in getting better, not to punish the child.
- Parents need to be supportive and patient and reward the child when even slight progress is made.
- Solving the problem together can help the parent and child learn new skills and increase their bond.

In *DSM-5*, a fundamental theoretical and organizational change also was made in the criteria for sleep-wake disorders—namely, the removal of causal associations between sleep disorders and the medical or mental disorders with which they frequently co-occur. That is, sleep disorders may exist independently of the medical conditions and warrant clinical attention in their own right.

The chapter in the layperson's guide details the following sleep-wake dis-

From the Experts

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have a very hard time functioning in the social world. At the other end of the spectrum, people with highly developed capacities for ToM can negotiate a range of social and interpersonal transactions ranging from parenting, friendship, and romantic intimacy to business, teaching, politics, and, of course, practicing psychiatry!

Cognitive psychologists have developed a wonderful array of ingenious experiments testing whether adults, children, and nonhuman primates have a functioning theory of mind. It is very difficult to discern whether nonverbal children and animals can imagine the minds of other creatures, and scientists argue like crazy among themselves about this question. Experiments in support of each side of these arguments make for interesting reading. Recently, some scientists, using the techniques of functional neuroimaging (fMRI), can illuminate brain regions that may play a role in the brain systems responsible for ToM. Even more recently, other neuroscientists have demonstrated the existence of mirror neurons, widely distributed throughout the primate brain, that fire when we perform an action and when we see someone else perform the same action. Scientists believe they may be a crucial part of the neural substrate for our capacity to understand what others are thinking, feeling, and planning to do.

ToM reminds us that, like it or not, most human beings are born with the ability to know and make sense of what goes on in the minds of other people. Therefore, when our students ask why we need a model of the mind, we respond with the statement: "You already have a theory of mind. Therefore, it might as well be a good one!" In our view, the psychoanalytic model of the mind is not altogether different from what ordinary people do every day. We all use our innate capacity for understanding minds to explain ourselves to ourselves and to understand the behavior of others. In other words, when things go as planned, we are all psychologists. PN

orders: insomnia disorder, narcolepsy, breathing-related sleep disorders (obstructive sleep apnea, hypopnea, central sleep apnea, and sleep-related hypoventilation), and parasomnias (non–rapid eye movement sleep arousal disorders, nightmare disorder, and rapid eye movement sleep behavior disorder). Also described briefly are hypersomnolence disorder, circadian rhythm sleep-wake disorders, and restless legs syndrome.

"So much progress is being made in the area of sleep disorders," Kupfer told *Psychiatric News*. "The chapter in the new layperson's guide is a good primer for patients and primary care physicians so they can very quickly get their hands on the facts. There are several distinctly different sleep disorders, so there is an important differential diagnosis that needs to be made, and good treatments are available." PN

More information on *Understanding Mental Disorders,* including pre-ordering information and links to previous articles in *Psychiatric News* about the content, is posted at http://www.psychiatry.org/mental-health/understanding-mental-disorders.

College MH Caucus to Meet

APA members with a special interest in college mental health issues are invited to participate in a meeting of APA's College Mental Health Caucus at this year's annual meeting in Toronto. The meeting will be held Monday, May 18, 2 p.m. to 5 p.m., Toronto Room, Convention Floor, Fairmont Royal York.

Collaboration

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Laura Roberts, M.D., chair of the Department of Psychiatry and Behavioral Sciences at Stanford, who has championed Reicherter's work in the community, said that partnering between academic and community organizations allows for new approaches to issues that each partner cannot resolve alone. "Communities can help academic programs focus their efforts on questions of greatest importance to health and well-being," she told *Psychiatric News*. "Academic programs can help communities invent and implement new resources to address health concerns.

"Academic programs also can help determine what works and what does not, so that resources may be engaged more effectively in improving health outcomes—and often what is learned can be shared with other communities elsewhere," she said.

> "Cross-cultural psychiatry is about learning how to interpret *DSM* disorders as they present in people from other cultures speaking other languages."

At the 2014 Institute on Psychiatric Services in San Francisco, Roberts spoke about academic-community partnerships in the symposium "Alone We Can

Do So Little, Together We Can Do So Much." She described other collaborative projects at Stanford, in addition to the partnership with AACI, as well as ongoing projects at other institutions (see box on page 13).

These partnerships, however beneficial to both partners, do not happen without effort. What are the barriers to success?

"Community-academic collaborations are very valuable and often accomplish far more than what is originally hoped for, but building a healthy partnership requires immense time and effort," Roberts said. "The best partnerships will be based in a sustained and deep dialogue characterized by shared optimism, trust, predictability, and clarity."

Reicherter agreed. "I think one of the biggest obstacles is lack of patience," he said "This project at AACI wasn't built in a day but was the product of years of working together, of evolving to the point where we were ready for a partnership. It's a matter of finding the right fit."

Roberts and Reicherter are among co-editors of a book on academic-community partnerships that will be published later this year.

He added that "buy-in" by leadership at the institution is crucial, and he said Roberts' championing of his work has been vital to its success.

Ultimately, Roberts said, outreach to the community is central to the mission of academic medicine. "Academic medicine is entrusted with serving all people across society by generating new knowledge, by translating what is learned into improved health for individuals and communities, by training clinicians and scientists, and by collaborating with stakeholders to address issues of greatest importance to human health," she said. "Every day academic medical centers serve the people living in their local communities, providing state-of-the-art clinical care and often giving patients the opportunity to access highly innovative treatments not available elsewhere." PN

Burden

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in order to treat any population that is underserved when it comes to mental health care, it is crucial for those countries to construct a workforce that will meet the mental health needs of its people, which will require modifying their educational systems to incorporate mental health in education for doctors, nurses, and other caregivers.

Once the foundation for education and training in mental health care is solid, explained Collins, then the stage may be set for a method known as task shifting—a process used in HIV clinical care in which an expert trains local care providers to deliver a treatment intervention.

"With psychiatrists being the most specialized providers in mental health services," Collins said, "task shifting will allow us to train nurses, primary care physicians, or laypersons to deliver mental health interventions, thereby extending the number of people available to deliver some form of mental health care."

Collins added that global "marketing" for available mental health services will also have to be addressed so that people can know where to go if they or a loved one displays symptoms of a mental disorder.

"We are a part of the globe," Collins said. "We have the opportunity to have equitable collaborations with a broader number of people than ever before. Since we have a global community that is now connected through informational technology and our ability to travel, we can take advantage of this community to collectively reduce the burden of disease associated with mental disorders." PN

Mortality

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ratios for all, natural, and unnatural causes of death; they also examined years of potential life lost and estimated the population risk of mortality due to mental disorders.

For all-cause mortality, the pooled relative risk of mortality among those with mental disorders (from 148 studies) was 2.22—indicating that people with mental illness had slightly more than twice the risk of dying prematurely than comparison groups of people without mental illness. Of these studies, 135 revealed that mortality was significantly higher during study periods among people with mental disorders than among the comparison population. Fourteen studies reported no significant difference in mortality risks between the two groups, and no studies reported lower mortality risks for people with mental disorders.

Analysis showed that 67.3 percent of deaths among people with mental disorders were due to natural causes, 17.5 percent to unnatural causes, and the remainder to unknown causes.

Twenty-four studies included estimates of years of potential life lost (YPLL) for people with mental disorders. Results from all these studies indicated that people with mental disorders had more YPLL compared with people in the general population. For all-cause mortality, the reduction in life expectancy ranged from 1.4 to 32 years, with a median of 10.1 years.

Interestingly, length of follow-up was associated with differential risks of mortality; studies with longer follow-up tended to report lower mortality ratios compared with studies with a follow-up of 10 or fewer years.

"One explanation is that people with mental illness [may] die earlier and that, during a long follow-up, the background rate of mortality among people without mental illness starts to catch up with people with mental illness as the whole sample ages," the researchers suggested.

Druss has been a leader in the movement toward integrated care and a focus on population health, and he has emphasized the critical importance of improving care for chronic general medical conditions of people with mental illness in public systems (*Psychiatric News,* October 4, 2013).

He and colleagues said the mortality statistics argue for the importance of collaborative care. "Prevention aimed at reducing mental disorders and chronic medical conditions is crucial," they wrote. "Prevention and care of chronic medical conditions among people with mental disorders require promotion of healthy behaviors, early diagnosis and coordinated management, and integrated care between the mental health and medical systems. People with mental disorders often do not receive preventive services, such as immunizations, cancer screenings, and tobacco counseling and often receive a lower quality of care for medical conditions." PN

Benjamin Druss, M.D., M.P.H.

Benjamin Druss, M.D., M.P.H., has been a leader in integrated care and population health, focusing on improving general medical care for patients with mental illness in the public system.

"Mortality in Mental Disorders and Global Disease Burden Implications: A Systematic Review and Meta-analysis" is posted at http://archpsyc.jamanetwork.com/article.aspx?articleid=2110027.

From the President

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M.D., Treasurer Frank Brown, M.D., Secretary Maria Oquendo, M.D., and Steven Starks, M.D. The APA staff was invested heavily in this effort and we would not have achieved our ends without their efforts. Lastly, our partner in facilitating this effort was the Center for Applied Research (CFAR) team: Barry Dornfeld, Tom Gilmore, and McWelling Todman.

The Strategic Planning Work Group contributed much thought and effort to arrive at its recommendations. It is now up to the Board to complete this work and put it into action. We are in a moment of high change in our health care system and great opportunity in science. We have a long history of being the trusted voice for our patients, their families, and our field. I believe this work will help us ensure a bright future for APA and for psychiatry, and in turn for our members and patients. We owe them no less. PN